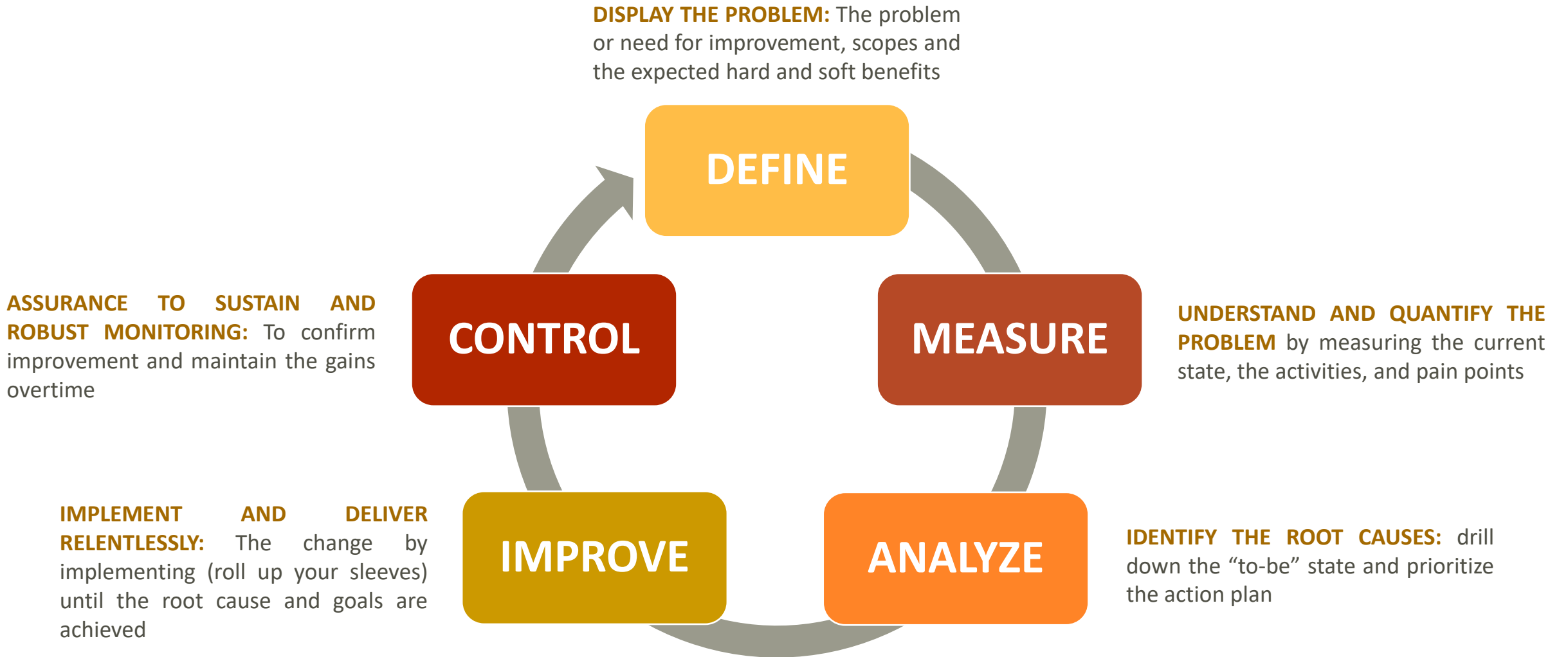


CONTINUOUS IMPROVEMENT ROADMAP



DEFINE

MEASURE

ANALYZE

IMPROVE

CONTROL

GOAL

- Define the Focus and Initiative

- Understand the flow activity, pain points, waste and impacts

- Identify priorities
- Map the “To-be” improvement
- Layout proposed solutions with impacts

- Pilot the “To-be” and implement the improvement

- Process solutions are embedded and sustained
- Sustain the change

KEY ACTIVITIES

1. Establish Objectives and Scope
2. Align objectives with PSF strategies
3. Assess dependencies, risks, constrains, potential roadblocks
4. Define metrics to solve or improve

1. Map or layout the current state (As-Is)
2. Identify waste and/or pain points
3. Conduct the required measurements for further analysis
4. Validate the current state understanding

1. Analyze and Prioritize opportunities
2. Team brainstorming
3. Select solutions from the analysis
4. Describe implementation plan and results
5. Conduct change impact assessment

1. Determine if a pilot test is required
2. Conduct the pilot (or simulation) and review potential risk
3. Make necessary changes
4. Involve all team members
5. Execute implementation

1. Scale up the new process
2. Create system to monitor and control the new process
3. Update relevant documentation that impact other areas
4. Update Targets, KPI's
5. Hand off project to the process owner

KEY OUTPUTS

- CI Business Case or Kaizen
- High level map of current state (SIPOC)
- Gemba Walk

- Process Map “As-Is”
- Pareto
- Data collection
- Current Value Stream Map
- 8 Waste assessment

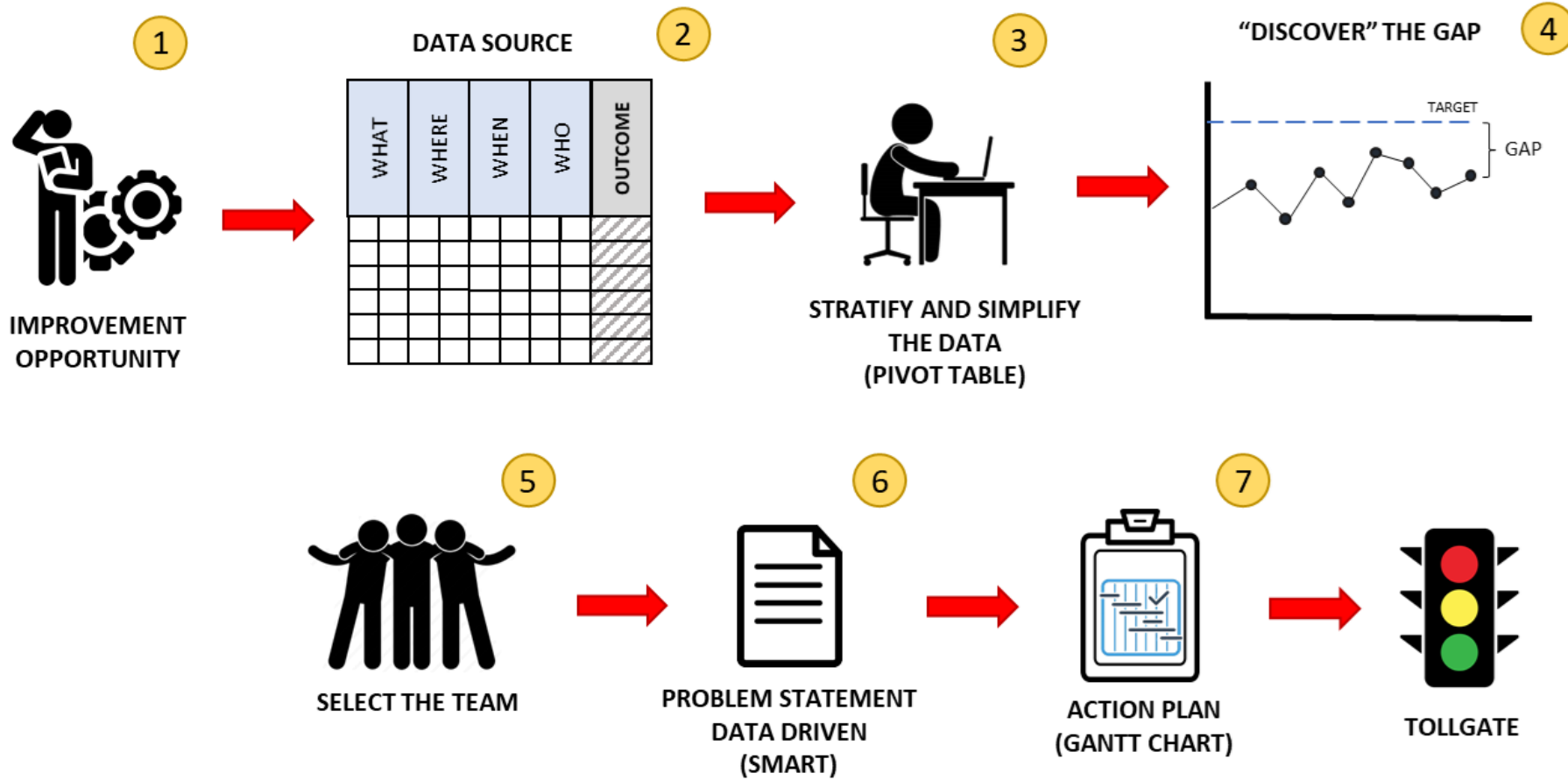
- FMEA
- Ishikawa (Fishbone)
- Run chart
- VA & NVA Analysis
- Process Capability

- Process Map “To-Be”
- Pilot Testing
- Line Balancing, SMED,
- Kanban, Process redesign

- CI Business Case Closure
- KPI's Update (OEE)
- Standard Work and SOP
- Process/ Production Controls

CONTINUOUS IMPROVEMENT PATH

DISPLAY THE PROBLEM

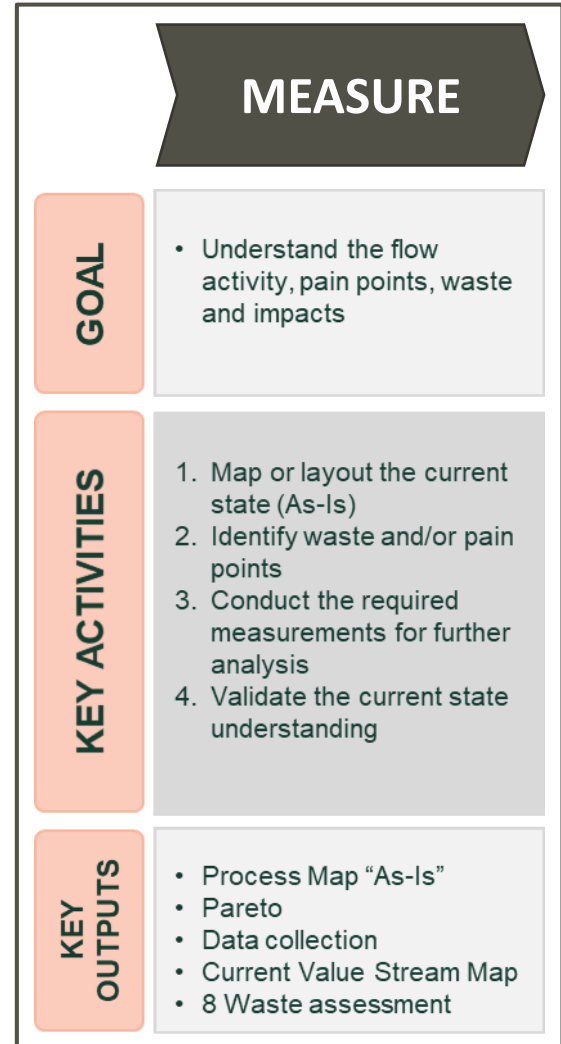
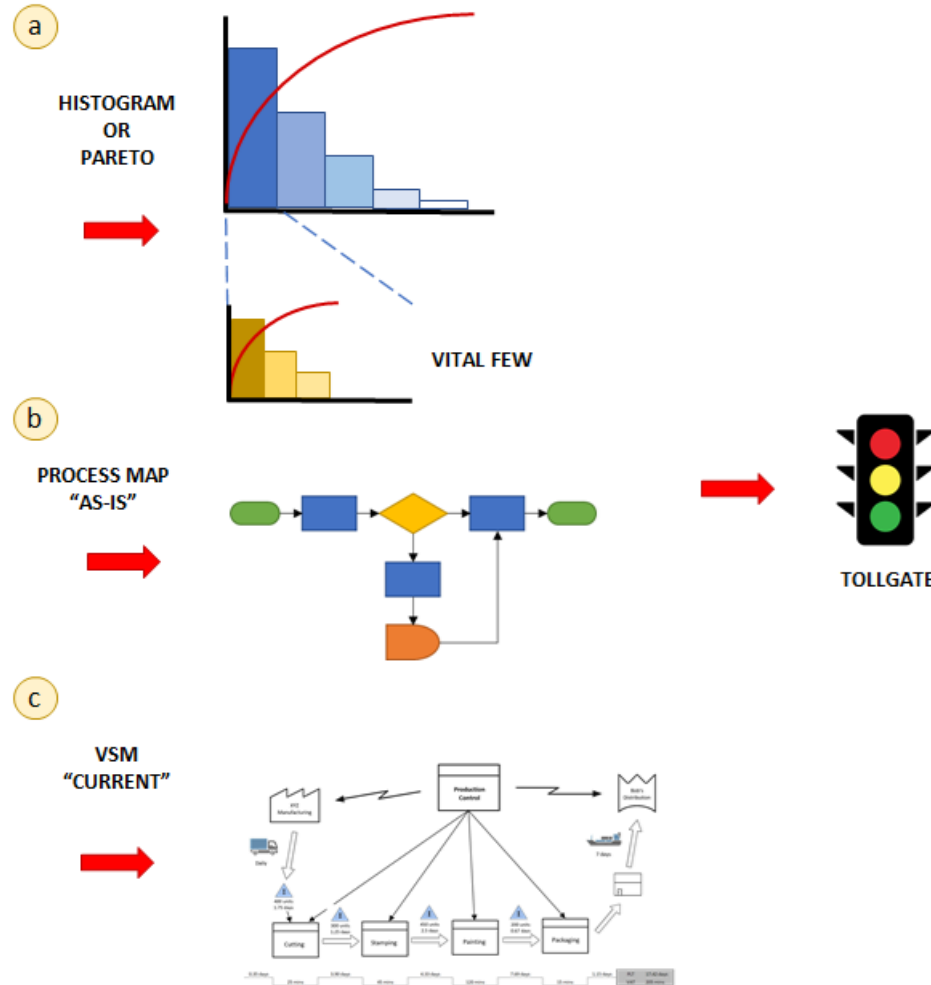
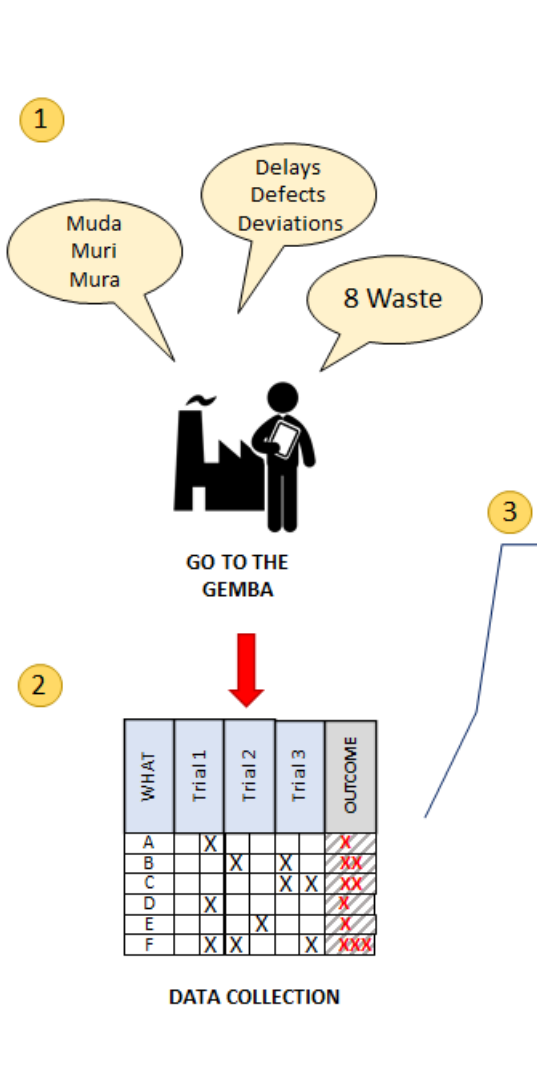


DEFINE

GOAL	<ul style="list-style-type: none"> Define the Focus and Initiative
KEY ACTIVITIES	<ol style="list-style-type: none"> Establish Objectives and Scope Align objectives with PSF strategies Assess dependencies, risks, constrains, potential roadblocks Define metrics to solve or improve
KEY OUTPUTS	<ul style="list-style-type: none"> CI Business Case or Kaizen High level map of current state (SIPOC) Gemba Walk

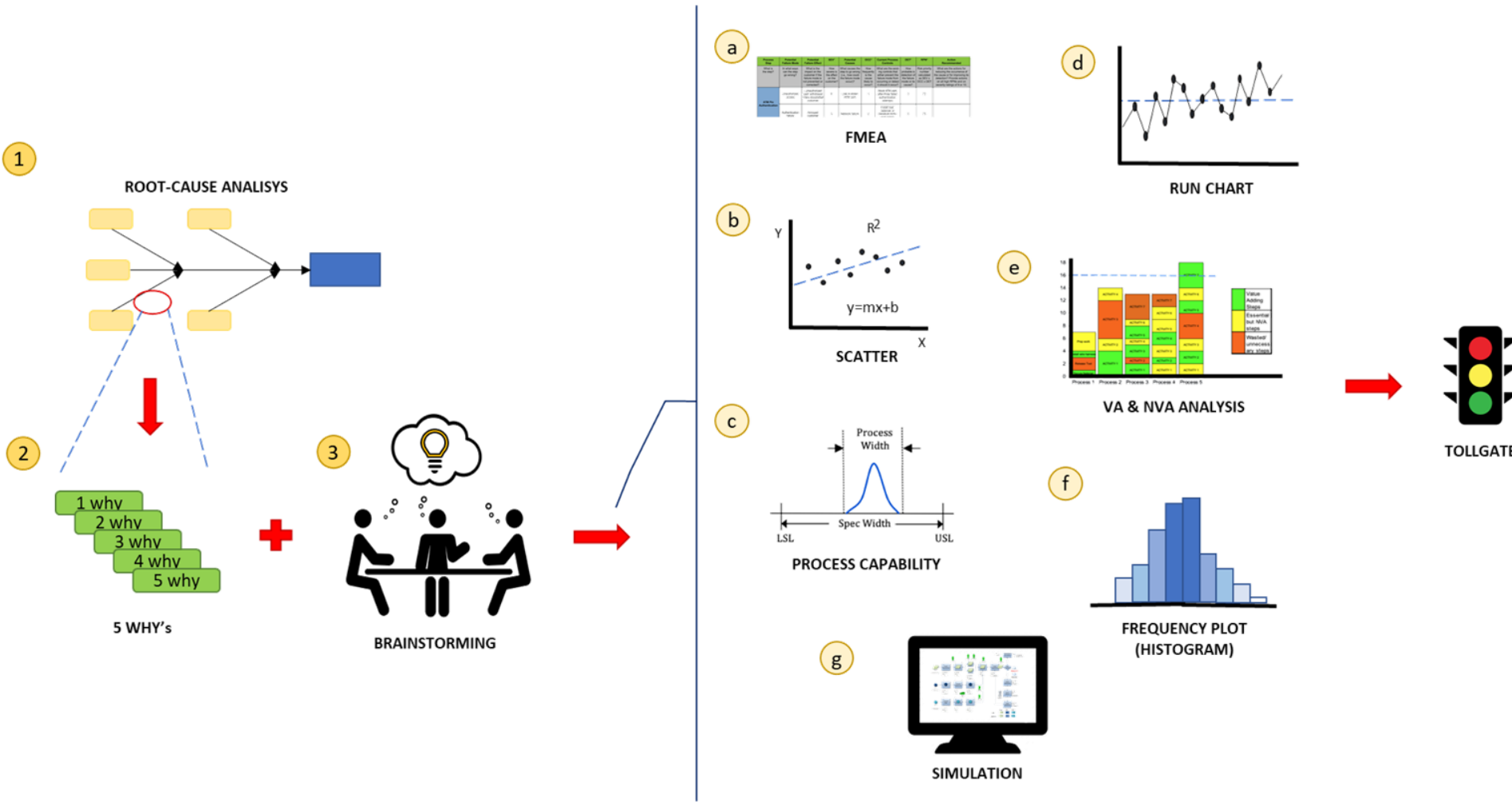
CONTINUOUS IMPROVEMENT PATH

UNDERSTAND AND QUANTIFY THE PROBLEM



CONTINUOUS IMPROVEMENT PATH

IDENTIFY THE ROOT CAUSES

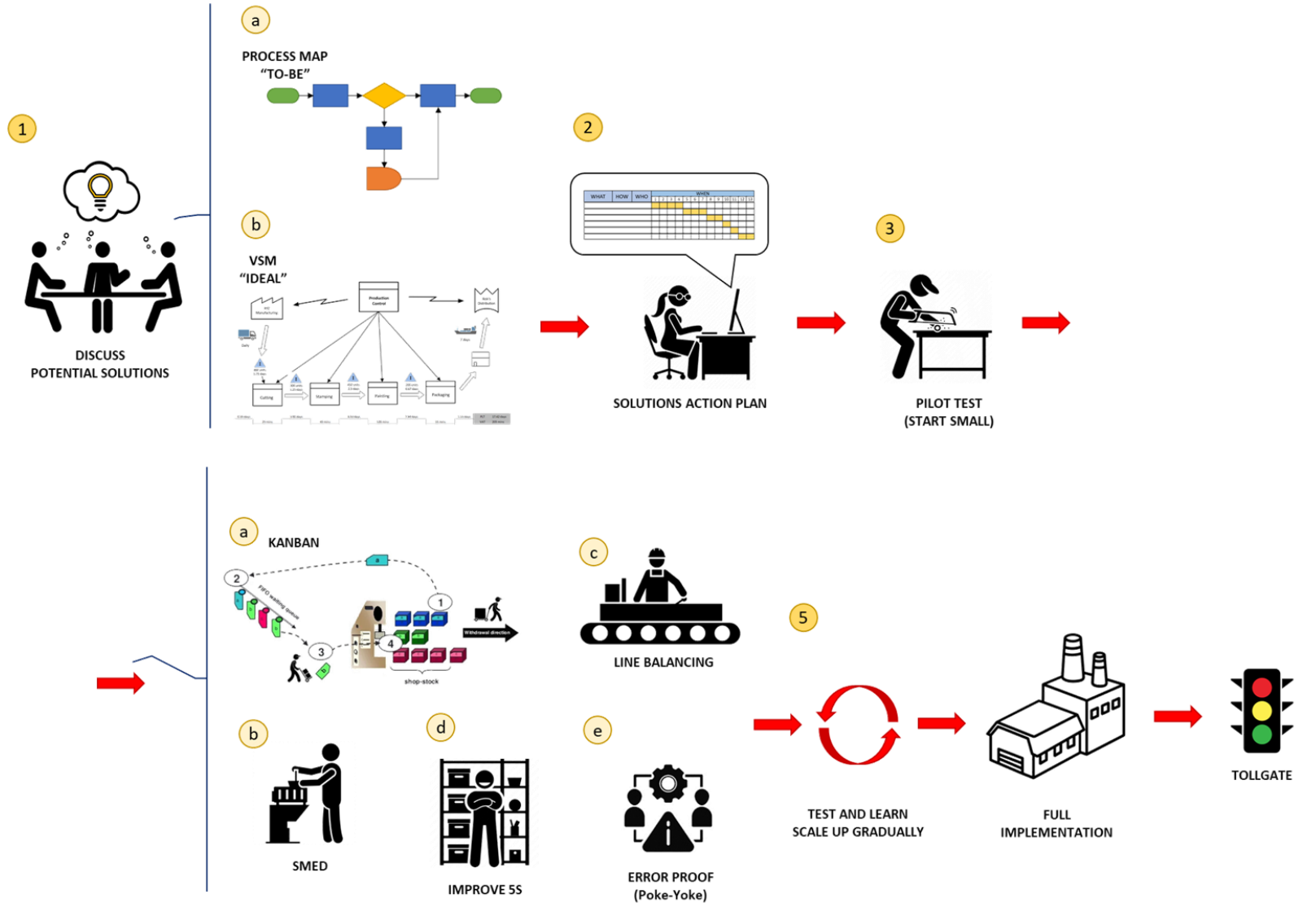


ANALYZE

GOAL	<ul style="list-style-type: none"> Identify priorities Map the "To-be" improvement Layout proposed solutions with impacts
KEY ACTIVITIES	<ol style="list-style-type: none"> 1. Analyze and Prioritize opportunities 2. Team brainstorming 3. Select solutions from the analysis 4. Describe implementation plan and results 5. Conduct change impact assessment
KEY OUTPUTS	<ul style="list-style-type: none"> FMEA Ishikawa (Fishbone) Run chart VA & NVA Analysis Process Capability

CONTINUOUS IMPROVEMENT PATH

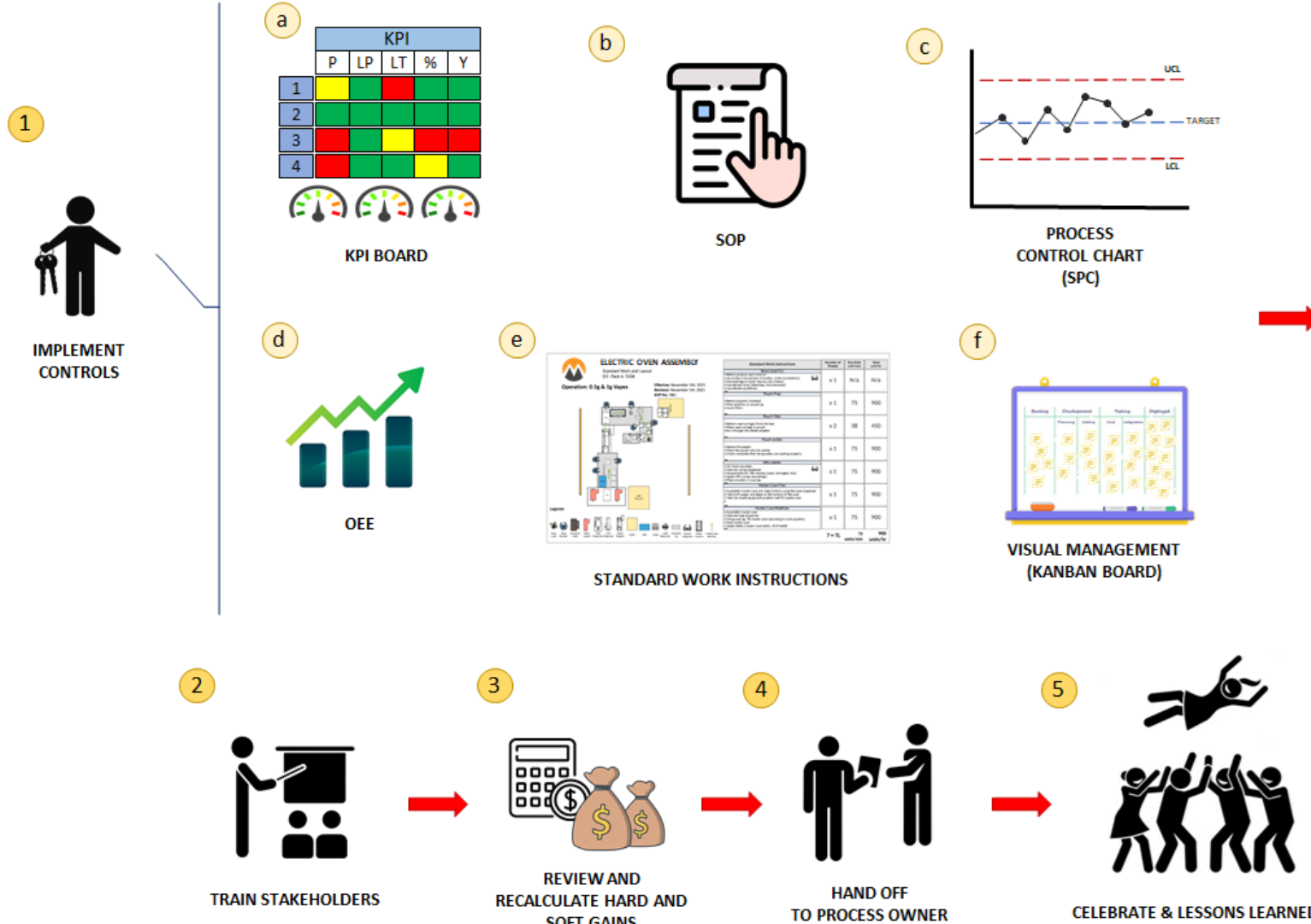
IMPLEMENT AND DELIVER RELENTLESSLY



IMPROVE	
GOAL	<ul style="list-style-type: none"> Pilot the “To-be” and implement the improvement
KEY ACTIVITIES	<ol style="list-style-type: none"> Determine if a pilot test is required Conduct the pilot (or simulation) and review potential risk Make necessary changes Involve all team members Execute implementation
KEY OUTPUTS	<ul style="list-style-type: none"> Process Map “To-Be” Pilot Testing Line Balancing, SMED, Kanban, Process redesign

CONTINUOUS IMPROVEMENT PATH

ASSURANCE TO SUSTAIN AND ROBUST MONITORING



CONTROL

GOAL	<ul style="list-style-type: none"> Process solutions are embedded and sustained Sustain the change
KEY ACTIVITIES	<ol style="list-style-type: none"> Scale up the new process Create system to monitor and control the new process Update relevant documentation that impact other areas Update Targets, KPI's Hand off project to the process owner
KEY OUTPUTS	<ul style="list-style-type: none"> CI Business Case Closure KPI's Update (OEE) Standard Work and SOP Process/ Production Controls